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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/694,159	10/23/2000	Ewout Brandsma	PHN 17, 694	9719

7590 09/22/2004

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TARRYTOWN, NY 10591

EXAMINER

ONUAKU, CHRISTOPHER O

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 09/22/2004

*[Handwritten number 4]*

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/694,159

**Applicant(s)**

BRANDSMA, EWOUT

**Examiner**

Christopher O. Onuaku

**Art Unit**

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6 and 8-10 is/are rejected.
- 7) ☒ Claim(s) 4, 7 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

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2. The disclosure is objected to because of the following informalities: the disclosure is not properly arranged because the disclosure is not arranged as suggested above.

Appropriate correction is required.

#### Abstract

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because the abstract contains more than one paragraph. Correction is required. See MPEP § 608.01(b).

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3,5,6&8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aizawa (US 4,849,956).

Regarding claim 1, Aizawa discloses an apparatus for recording/reproducing information on or from a recording medium, comprising the method of recording information onto a recording medium having at least one recording track divided into logic blocks; wherein a predetermined part of the recording medium is reserved as a spare recording area; wherein the information file to be recorded is divided into data packets, and wherein a file writing session comprises the steps of: recording information data in a block (track) of the recording medium (optical disk 1 of Fig.4) in a block (track) writing session; examining whether the track is a defective track, storing the information data in an auxiliary memory (relay track or RT memory 17 of Fig.4) in an auxiliary writing session if the track appears to be a defective track, repeating the steps above for all the information data in the information file, subsequently, in a substitute writing session, copying the information data stored in the auxiliary memory to the spare recording area (see relay tracks of col.4, lines 32-61) of the recording medium (optical disk 1 of Fig.4) (see Fig.4&5; col.3, line 41 to col.4, line 61).

Aizawa fails to explicitly disclose recording information data divided in data packets. Official Notice is taken that it is well known to divide information data in data packets, since dividing information data in data packets provides the desirable advantage of including the main information and identification information together to identify the main information, thereby facilitating the reproduction process of the main information.

It, therefore, would have been obvious to modify Aizawa by realizing Aizawa with the means to divide the information data of Aizawa into data packets before storing the information data, since this provides the desirable advantage of including the main information and identification information together to identify the main information, thereby facilitating the reproduction process of the main information.

Regarding claim claims 2&3, the claimed limitations of claims 2&3 are accommodated in the discussions of claim 1 above.

Regarding claim 5, the claimed limitations of claim 5 are accommodated in the discussions of claim 1 above.

Regarding claim 6, Aizawa disclose the method characterized in that the recording medium is a tape (see col.4, line 66 to col.5, line 3; a tape is a recording medium and has tracks). Aizawa fails to explicitly disclose the method characterized in that the spare recording area of the tape is preferably situated at the beginning of the tape. But this would have been an obvious engineering design consideration depending on the circuit at hand.

Regarding claim 8, the claimed limitations of claim 8 are accommodated in the discussions of claim 1 above, including the control unit (see Fig.4, control section 16).

Regarding claim 9, Aizawa discloses buffer memory means (see buffer 23a of Fig.8) , wherein the control unit (see CPU 21 of Fig.8) is adapted to store data packet recorded in a block (track) of the recording medium also in the buffer memory, and to copy (transfer) the data packet from the buffer memory (see buffer 23a of Fig.8) to the auxiliary memory (see relay sector buffer 78 of Fig.8) if the relevant block (track) is found to be a defective block (track) (see col.5, lines 40-65), here the data packet limitation is accommodated in the discussions of claim 1 above.

Regarding claim 10, Aizawa discloses wherein the control unit is adapted to also store bookkeeping (management) data in the auxiliary memory, which bookkeeping data defines a relationship between block (track) numbers of defective blocks and start addresses of sections in the auxiliary memory where the information data have been temporarily stored (see Fig.4; track number memory 18 which stores numbers of defective tracks; col.3, lines 60-64; col.4, lines 16-27), here track numbers also indicate the locations in the recording means where data are stored.

***Allowable Subject Matter***

7. Claim 12 is allowable over the prior art of record.
8. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 12, the invention relates to recording digital information on a recording medium, such as tape, magnetic discs, optical discs, etc, having at least one recording track divided into logic blocks.

The closest reference Aizawa (US 4,849,956) discloses an apparatus for recording/reproducing information on or from a recording medium.

However, Aizawa fails to explicitly disclose a read apparatus for reading information from the recording medium having at least one recording track divided into logic blocks and having a spare recording area, where the apparatus comprises wherein the control unit is adapted to initially copy data packets, including bookkeeping data, stored in the spare recording area of the recording of the recording medium to the auxiliary memory, wherein the control unit is adapted to examine whether the block address of a block to be read from the recording medium appears in a substitution table comprising the bookkeeping data, and wherein the control unit is further adapted to read the data from a block and supply the to the output if a block address of the block does not appear in the substitution table, and to read substitution data from the section having start address from the auxiliary memory and supply the substitute data to the output if the block address is found to appear in the substitution table

9. Claim 4,7&11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.



Regarding claim 4, the invention relates to recording digital information on a recording medium, such as tape, magnetic discs, optical discs, etc, having at least one recording track divided into logic blocks.

The closest reference Aizawa (US 4,849,956) discloses an apparatus for recording/reproducing information on or from a recording medium.

However, Aizawa fails to explicitly disclose a method of recording information onto a recording medium having at least one recording track divided into logic blocks, where the method comprises wherein the substitute writing session of copying the data packets stored in the auxiliary memory to the spare recording area of the recording medium is carried out in response to the receipt of a command to remove the recording medium from the recording apparatus or in response to the receipt of a command to turn off the recording apparatus.

Regarding claim 7, the invention relates to recording digital information on a recording medium, such as tape, magnetic discs, optical discs, etc, having at least one recording track divided into logic blocks.

The closest reference Aizawa (US 4,849,956) discloses an apparatus for recording/reproducing information on or from a recording medium.

However, Aizawa fails to explicitly disclose a method of reading information from a recording medium, where the method comprises the steps of examining whether the block address of a block to be read from the recording medium appears in a substitution table comprising bookkeeping data, reading the data in the block to be read if the block

address is found not to appear in the substitution table, and supplying the data thus read to an output, but if the block address is found to appear in the substitution table, reading substitution data from the section having the start address in the auxiliary memory and presenting the read substitute data to the output, and repeating this process for all the blocks of a file.

Regarding claim 11, the invention relates to recording digital information on a recording medium, such as tape, magnetic discs, optical discs, etc, having at least one recording track divided into logic blocks.

The closest reference Aizawa (US 4,849,956) discloses an apparatus for recording/reproducing information on or from a recording medium.

However, Aizawa fails to explicitly disclose a recording apparatus for recording information on a recording medium having at least one recording track divided into logic blocks, where the apparatus comprises wherein the control unit is adapted to copy any data packets stored in the auxiliary memory to the predetermined spare recording area of the recording medium only when a command is received to enable ejection of or to eject the recording medium, or when a command is received to turn off the apparatus.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Martinez (US 4,498,146) teaches information storage systems, including the management of storage media defects in such systems.


Kikuchi et al (US 6,577,812) teach a digital information recording medium having a limited storage amount and premised on variable bit rate recording, including a digital information recording/playback system using a digital information recording medium having a limited storage amount.

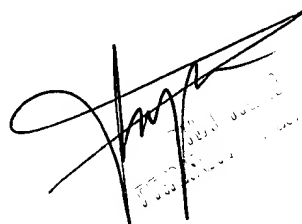
Ando et al (US 6,654,543) teach an information storage medium represented by a large-capacity optical disc and a digital information recording/playback system using the medium.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher O. Onuaku whose telephone number is (703) 308-7555. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B. Christensen can be reached on 703-308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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